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CLAIMS

- 1. A phosphor comprising at least one selected from the group consisting of Si and Ge, and Eu as an activator,
- and ratio R of not less than 40 %, wherein the ratio R is calculated by entering value of [a] being peak amplitude derived from Eu²⁺ and value of [b] being peak amplitude derived from Eu³⁺ in primary differential pattern of an X-ray absorption near edge structure spectrum into the following equation (1).

$$R(%) = (a/(a+b)) \times 100$$
 (1)

- 2. The phosphor according to Claim 1, wherein the ratio R is not less than 60 %.
- 3. The phosphor according to Claim 2, wherein the ratio R is not less than 80 %.
 - 4. The phosphor according to Claim 1, wherein the phosphor further comprising at least one selected from the group consisting of Ca, Sr and Ba, and at least one selected from the group consisting of Mg and Zn.
 - 5. The phosphor according to Claim 1, wherein the phosphor has a compound represented by a formula (2) and Eu as the activator;

$$mM^{1}O \cdot nM^{2}O \cdot 2M^{3}O_{2}$$
 (2)

wherein, in the formula (2), M^1 is at least one selected

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1 to 5.

from the group consisting of Ca, Sr and Ba, $\label{eq:mass_special} \textbf{M}^2 \text{ is at least one selected from the group consisting}$ of Mg and Zn,

 ${\rm M}^3$ is at least one selected from the group consisting of Si and Ge,

m is not less than 0.5 and not more than 3.5 and n is not less than 0.5 and not more than 2.5.

- 6. A vacuum ultraviolet excited light-emitting device comprising any of the phosphors according to Claim
- 7. Use of any of the phosphors according to Claim 1 to 5 as a vacuum ultraviolet excited light-emitting device.